

TRAUMATIC BRAIN INJURY IN UTAH

Facts about Traumatic Brain Injury (TBI) in Utah

- Males sustain nearly twice as many TBIs as females.¹
- People under age 30 suffer the most TBIs (46%).¹
- Utahns over 60 are most likely to sustain TBIs as a result of falls.¹

What is TBI?

Includes one or more of the following:

- Observed or self-reported unconsciousness or decreased level of consciousness;
- Amnesia;
- Skull fracture;
- Changes in motor function, sensory function, reflexes, speech;
- Seizures; or
- Hemorrhages, bruising or other trauma of the brain.

2005 Traumatic Brain Injury Data

WHO

- 2,554 Utahns (1,674 males, 880 females) suffered TBIs in 2005 for a rate of 100.9 per 100,000 population.¹
- Of those victims with TBIs, 486 (19%) died.¹
- Utahns under age 30 suffered the highest rates of TBI at 639.3 per 100,000 population.¹
- 73 TBI victims were infants under age 1 with 41% being due to falls.¹

HOW

TBI Sampled Cases By Cause ¹			
Cause	Number*	Percent	Rate per 100,000**
Falls	525	37.7%	46.3
Motor Vehicle	417	29.9%	27.4
Sports	188	13.5%	12.6
Other Motor Vehicle	116	8.3%	8.1
Assault	61	4.4%	4.5
Falling Object	19	1.4%	1.3
Other/Unknown	68	4.9%	7.1

* N=1,394. Numbers in table represent sampled cases representative of TBI throughout Utah.

** Rates are adjusted to represent all TBIs.

WHERE

- TBI rates are higher in rural Utah counties than in urban counties. Urban Utah includes Salt Lake, Utah, Davis and Weber Counties.¹
- The health districts with the highest TBI rates were Summit, Central and Tooele (211.3, 203.7, and 159.1 per 100,000 population respectively). The Davis, Utah and Bear River districts had the lowest rates (56.3, 60.9 and 86.9 per 100,000 population respectively).¹

HOW MUCH

- In 2005, hospital and emergency department charges for TBI victims amounted to \$63 million.¹
- Motor vehicle crash charges were the most at \$26 million (41% of TBI medical costs) and falls second with charges of \$19 million (30% of TBI medical costs).¹

TBI PREVENTION

Motor Vehicles

- Wear a seat belt on every ride
- Put children in the appropriate car seat or booster seat for their age and weight until they are at least 4'9" tall and weigh at least 80 lbs.
- Always secure children in the back seat
- Don't drive drunk, drugged or drowsy
- Wear a helmet on every motorcycle, ATV and snowmobile ride

Around the Home

- Check for and correct hazards like loose carpeting, electrical cords in pathways, unsecured throw rugs, loose or missing handrails, and slippery surfaces in bathrooms
- Use a sturdy stepstool to reach overhead items
- Remove clutter from stairways and common pathways
- If older adults live in the home, install grab bars in the bath/shower area and beside the toilet
- Check older adults' medications for side effects that could lead to falling
- Place nightlights in bedrooms and bathrooms
- Store all firearms locked and unloaded and with ammunition in a separate location



Sports

- Wear the right helmet for hockey, football, baseball, skiing, snowboarding, sledding, horseback riding, as well as bicycle, scooter and skateboard riding

SEASONAL TBI PREVENTION SAFETY TIPS²

Spring

Bicycling

- Always wear a bike helmet
- If riding at night, have a red light, front head light and side reflectors
- Follow the rules of the road, including riding on the right side of the road in the same direction as traffic
- Use hand signals and obey all traffic signals and lane markings
- Stop at all intersections
- Stop and look both ways before entering a street
- Watch for automobiles exiting or entering driveways and parking lots
- Always stop, look left-right-left and listen for traffic before crossing at stop signs, stoplights and busy streets
- Check that the road is clear before turning or changing lanes
- To get across a busy street, use the nearest intersection or crosswalk (if using the crosswalk either walk the bike or make sure and yield to pedestrians in the crosswalk)
- Ride 2-3 feet away from parked vehicles (to avoid opening car doors)
- Watch for parked vehicles pulling away from the side of the road
- Ride single file with at least one bicycle length between cyclists



Playground

- Assure resilient surfacing is under all equipment
- Avoid walking in front of moving swings
- Wait until swing stops before getting off
- Go feet first, not head first, down slides
- Wait until slide is cleared before going down

Street Safety

- Always stop at the curb or edge of the road
- Look left-right-left before crossing
- Walk on the sidewalk, not the road
- Walk facing traffic if there is no sidewalk
- Learn the signs that a parked car is about to move; engine noise, backup lights and a driver behind the wheel
- Wear reflective clothing or strips when out after dark

Summer

Swimming

- Have a designated adult to watch children before going near the water
- Always swim with a buddy or adult; never swim alone
- Kids should avoid pushing others under water
- Avoid diving or jumping into shallow water
- Keep out of the water during lightning storms and bad weather
- Dive into water only after an adult has checked and given permission
- Step and climb into a pool; avoid jumping or diving
- Avoid running on hard surfaced pool areas and near pool furniture to prevent tripping or falling

Boating

- Always wear an approved U.S. Coast Guard life jacket
- Children should ask for permission before getting into a boat
- Adults should supervise children at all times

Fall

Horseback Riding

- Always wear an approved helmet when mounted on a horse
- Tighten the helmet to fit snugly. The strap must touch the rider's jaw and/or chin
- Wear boots or shoes with a heel that covers the ankle when using stirrups
- Never lock the safety stirrup bar upright
- Use safety stirrup irons
- Check equipment before riding
- Avoid being tied to a horse by wrapping lead rope or reins around the hand or waist

Winter

Sledding

- Sled sitting up, facing forward with feet first; never sled head first
- Sled away from trees, buildings and roads
- Sled only where there is a flat runoff area for stopping
- Avoid sledding on icy slopes
- Brake and steer on small slopes first, before moving onto steeper hills
- Use hand holds when snow tubing to prevent bouncing or sliding off
- Wear protective clothing including gloves, boots and helmets

Skiing & Snowboarding

- Ski and snowboard on easy slopes at the beginning and end of the day
- Choose slopes that match skiing ability
- Ski or snowboard with someone who can help in case of injury
- Recognize signs of tiring and know when to stop
- Take rest breaks often
- Wear a helmet for protection
- Tuck in scarves, hood strings. Loose fabric and long hair to avoid catching them on ski lifts
- Avoid areas where snow-making equipment is being used, since surface and visibility can change quickly
- Avoid snowboarding in large groups
- Avoid icy slopes and conditions that increase speed and decrease control



References

¹ Utah Department of Health, Violence & Injury Prevention Program, TBI database

² Brain Injury Association of America *Winter Safety for Children* brochure./ <http://www.biau.org/>